can call two diamonds at the start.

cress the danger line, but his partner

four diamonds and then all passed. Had

interesting to observe that Y and Z would

have set the contract in the first four

PROBLEMS FOR SUN READERS TO SOLVE

Bergholt's Eight Carder at Bridge Had a Trap for Would-be Solvers.

FOR THE CHECKER PLAYER

A Proposition for the Class in Magic Squares That Looks Simple, but Isn't.

Bridge problem No. 155 was thought by many solvers to be deep enough to be by ctetumas er Boardman, but it was f Bergholt's and perhaps the



The correct line of play is for Z to start with the five of spades. A passes this trick up to B's queen, or wins it and leads another spade to B. In order to avoid eading the other suits to a disadvantage, will return the king of spades after winning the first trick with the queen A passes it up and Y ruffs with the seven

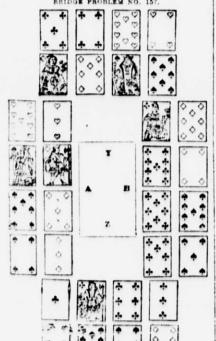
Y new starts to get two leads of hearts aga B by playing the ten. This B H's jack with the king and leads the trey

cade the jack of trumps through A's queen Y can win the trick with the ace and make his established heart for the last trick.

There are a number of minor variations, but in each the tactics are about the same, the objective point with Y and Z being to get those two leads through B's hearts and A-B's being to avoid putting Y into the lead twice to lead hearts and once to make the fourth heart. All whose solumake the fourth heart. All whose solutions show that they grasped this point are credited with correct solutions. whether they gave all the variations or

More than two-thirds of the solutions sent in for this problem were wrong, ecause they started with the trump lead rom Z's hand, which will not solve the problem, no matter which trump Z leads rst. Here is the way these solvers lought it could be done

If Z leads the three of clubs A plays small and Y wins the first trick with the ten Y comes along with the ten of earts, which Z wins over B's jack, and en Z leads a spade for V to trump his gives Y a chance to lead the much eeded second round of hearts, which



There are no trumps and Z is in the lead.
With eight tricks to play Z remarked that he would get the rest, upon which A laid down his cards and Z laid down his, but B declined to concede the balance, stating that he would put his hand down and play it out, which he did.

As soon as Z had taken a good look at the hands he offered to bet \$50 that he would get the eight tricks. B took him up. Now what was B's idea and who won the bet?

CHECKER ENDINGS The position printed two weeks ago in problem No. 155 was another of H. D. Lyman's instructive little end games. The distribution of the forces was: Black The distribution of the forces was: Disco-kings on 9 and 11; white king on 1, white-men on 17 and 19. White to play and win. Here are the moves:

White Black.

9 13 19 15 22-15 18-9

If black's first move is 9 6, then 17-13 vins for white.

an easy matter for a person to imagine he had solved it when he had not. Here is the original position:

**Total State of the series of the imagine he had solved it when he had not. Here is the original position:

**Total State of the series of the imagine he had solved it when he had not. Here is the original position:

**Total State of the imagine of the imagine he had solved it when he had not. Here is a very instructive position, which will give the beginner a good idea of how various defences must be foreseen and provided for: Correct solutions from: W. L. Barteaux, Edward J. Delehanty.

PROBLEM NO. 157 -CHECKERS.



White to play and win.

THOSE MAGIC SOURCES.

This brings us to the first legitimate variation of the problem in the defence, depending on whether A covers with the defence, depending on whether A covers with the dependence of this problem. Several solvers the queen or puts on the eight. If A plays the queen, Y wins with the ace and comes through B with the nine of hearts. B must refuse to cover this trick, or all the heart and Z is in.

THOSE MAGIC SQUARES.

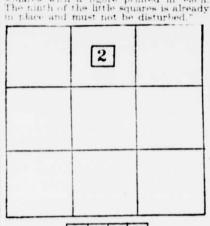
Although a large number of answers plain suit to defend. The two chief uses of the trump declaration are that the trump enables you to stop the adversaries strong suits by ruffing them and that trumps are a general all round retentive for good suits of your own.

By good suits is meant such as can be importance of this condition in connection with this problem, these prime numbers are given here:

THOSE MAGIC SQUARES.

Although a large number of answers plain suit to defend. The two chief uses of the trump declaration are that the trump enables you to stop the adversaries strong suits by ruffing them and that trumps are a general all round retentive for good suits of your own.

By good suits is meant such as can be established in one lead after the adversaries? Trumps are gone or such as because of this condition in connection with this problem, these prime numbers are given here:



6	2	7
1	9	5
8	4	3

out of the main prison gate.

He crossed the frontier to Poland and returned to France by way of Austria and

Gen. Zurlinden was another prisoner who got out of his prison at Glogan in Silesia, on Christmas eve. He made his way in dis-guise through Berlin, Frankfort and Carlsruhe to Basie, a feat which was not difficult for him, as, being an Alsatian, he spoke

German quite as well as his jailers.

Thirdly, we may note the experiences of M. Paul Derondede, who escaped from Bresian, and it is primare to recall that the to disguise himself as a Polish dew. He was very nearly betrayed by a peasant whom he had bribed to guide him into Bohemma, but he drew his knife with a ferocloss gesture and the peasant changed his mind, with the result that M. Derondede saw the final fights of the war as a sublection of Turcos.

Thirdly, we may note the experiences of M. Paul Derondede, who escaped from the could be struck at the Philadelphia mint have no mint mark, those struck at all other mints of the United States are distinguished by a small letter near the bottom; these letters are: C for Charlotte, N. C., discontinued in 1881; CC for Carson whom the first his mind, with the result that M. Derondede saw the final fights of the war as a sublection of the discontinued.

Z started with a bid of two diamonds to show that the suit was long, but of no use as part of a no trumper, not being headed by any winning cards. A bid two hearts and Y passed, as he could not ruff the adverse suit.

WHEN NOT TO LEAD TRUMPS AT AUCTION

Hands That Are Lost by Always Following the Rule.

A SUIT TO BE DEFENDED

The One Requisite Before the Trumps Are Called Out-Some Illustrativ Hands.

won if trumps had not been led.

The rules for not leading trumps are much better than the rule for leading them, but if the beginner prefers the positive direction, an excellent maxim is to lead only when you have a good plain suit to defend. The two chief uses of the trump declaration are that the

heart and Z is in.

Now Z leads the ten of spaces and Y mith space of spaces (if A still has that card) with the ten of clubs, and leads his fourth heart, allowing Z to overtrump is and win the seventh trick for the Y and Z end of it.

If A passes the trey of clubs at the fourth trick Y is able to win his partner's lead with the ten, shutting out B's nine. The play of the heart nine follows, as in the first variation, and B must refuse to cover it, as before. The third round of hearts Z wins with the ace, and when he leads the jack of trumps through A's

The wise man of the East was so tickled.

The wise man of the East was so tickled.

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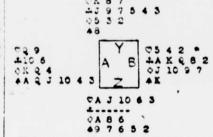
The wise man of the East was so tickled.

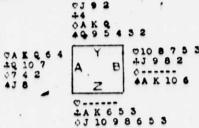
The wise man of the East was so tickled.

The wise man of the East was so tickled.

eads the jack of trumps through A's enough.

The wise man of the East was so tickled trump attack, the play of the hand being went stopp preceded by some instructive bids





Many players with such cards as Y's would make the mistake of helping mother with three top diamonds. But Y has no AT THE CHESS BOARD; more than the average two tricks, which GAMES AND PROBLEMS he has a right to put down as an answer. These are the two club tricks that he can ruff. His trumps are of no other use if

his partuer has so many of them that he World's Championship Match Not Z went on to three diamonds because he Likely for the Present. could ruff the hearts and A was afraid to

pushed it along on the strength of his LASKER STOPS POURPARLER ability to ruff the diamonds. Z went

A or B gone another trick in hearts it is Manhattans Decline to Play Berlin in a

tricks played, by Y's lead of the singleton

Are Called Out—Some II—
Instrativ Hands.

Beginners, when studying the play of the diamond declaration A led the vision of the diamond at once with the assurance that it will fit the case. Second hand low, third hand high is about the style of thing they are usually looking for quently given by eachers because it issues to lead trumps alone to lead trumps alone for the danger that any plain sait may be ruffed in the first round of the fast of the danger that any plain sait may be ruffed in the first round of the sain is to high their trumps and play the plain sait may be ruffed in the first round or two by the adversaries.

Any player who blindly follows the ruff as gain the second and the second responsible the rumps as and new reference of the complete o

hicago and asked him why he did not mak New York his residence instead, inasmuc as he would find here much better oppo-tunities of meeting strong players. M triend answered: 'There are more tha hundred reasons why I can't come to Ne York.' And on being asked by me to give me just one my friend replied: 'I have not get the money for such a trip.' C course I was fully satisfied and never wante to hear the other ninety-nine reasons.

"This case is really a similar one. Capablanca practically objected to one and all the rules laid down by Lasker, and when the latter read that sentence, under no circumstances," &c., he probably did not care to read any further and made up his mind accordingly. I therefore expect the champion to say very little indeed when giving pion to say very little indeed when giving Or 2

4J 8 6 5

010 4 3

B

C5 3 -A Q 9 7 3 44 9 6 3

should learn first is, not to lead trumps unless he has a suit worth defending, one which he would lose tricks in if the adversaries got a chance to trump it. They do not trump their own winning cards.

Here is a fair example of the blind trump attack, the play of the hand being preceded by some instructive bids:

\[\times \time with his singleton.

Z would have won with the ace and principle, meaning thereby that the Cuban

Z would have won with the ace and returned the suit small, as the two must be Y's only club. Y would have ruffed and led two rounds of hearts, ace first and then deuce. A would have put on dummy's king to make sure of the trick and led the trump.

Having a good bridge declaration in his cards, but far from a game hand Z started with one spade. A doubled the spade. As this pulled Z out of the call by reopening the hids Y massed his ailence rest of the tricks, as B can ruff a spade. spade. As this pulled Z out of the call by reopening the bids Y passed, his silence showing what he had or rather had not.

Any bridge player holding B's cards would probably call one club to show his suit. The auction player is in no inurry about that. He knows Z is not going to let it stand at a doubled spade, and if B pulls Z out with a club call Z will leave it to A to pull B out, and there you are.

With the knowledge that Y has not a sure trick in any suit, but that he may

The part of the part is sent of the part is part in the part is sent of the part is part in the part in the part is part in the part in the part is part in the part i

QUEEN'S GAMBIT DECLINED Succhting Leonhardt. Succhting White. 20 Kt—R4 21 Kt—B5 22 B—Q7 ch 23 B—Kt4 24 K—Kti 25 Kt—Q7 26 KtxP 27 Q—Q6 ch 28 B—Q7 ch 29 RXBP 30 R—B5 6 B K15 QKt B3
7 P K3c P K18
8 B K4 P K18
9 B K15 K18 H4
10 RPakt B K12
11 R B P K5
11 R C K 20 RX 10P 30 R - B5 31 B - P8k 32 BXP 33 Q - Q7 31 K - R2 35 B - R3t 36 QR - B 37 Q - K17 Resigns

What would have been looked upon as the nost interesting chess encounter of modra times, namely a match between Dr.

Wanhattans Decline to Play Berlin in a control of the Clubs.

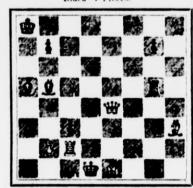
What would have been looked upon as the nost interesting chess encounter of modra times, namely a match between Dr.

Was Resigns

Will Long Be Cut Off From the Rest of the World—Why the Station Is Needed.

10	RUT LOPEZ.				
n,	Suechung. White.	Leonhardt. Black. P-K4	Succhting. White.	Black.	
	2 Kt-KB3	Kt-QB3	23 B-R2 24 R-Kt	B-B3 QKt-K45	
at	3 B-Kt5	P-QR3 Kt-B3	25 R- KB	R-R2	
ke	6 R-K	H-K2 P-QKU	26 P-QK t3	R-K Bakte	
ch	7 B-Kt3	P Q3 Kt-QR4	28 PxB	Kt-B	
r-	9 BB2	P B4	30 Q R5	Kt-R2d	
ly an	10 P-KR3	Kt—B3 Q—B3	31 KtxB.ch 32 R B4	Rt-Q2	
**	12 B-K3 13 QKt-Q2	R-Q	33 TAP	Kt Q: -B	
ve	16 P - 8 R4	Kt-Kt	35 B - B4 35 K - B2	Q Qo.ch	
90	10 I' H4	QKt Q:	37 0-0	K t- 133	
of	17 Kt R2	Rt-B FxP	38 R - B3	Kt Kor	
	10 BAKBP 20 B-Kt3	Rt Kta Kt Q2	40 BxKt 41 Q R5	RxB P - Kus	

"This case is really a similar one. Capablanca practically objected to one and all the first fir



White-6 pieces. White to play and mate in three moves PROBLEM NO. 224.



White to play and mate in two moves solution to PROBLEM NO. 221. 80LUTION TO PROBLEM NO. 222.

1. R—B4, R—R or R—R3; 2. Q—Q8, &c.

1. R—B4, K x R; 2. B—Q6, ch. &c.

1. R—B4, K — K t3 ch; 2. B x R, &c.

1. R—B4, K — K t3. 2. B x R, &c.

1. R—B4, K — K t4. 2. B—Q6, &c.

1. R—B4, K — B7; 2. K — B6 ch. &c.

1. R—B4, any other; 2. B—Q6, &c.

2. R—B4, any other; 2. B—Q6, &c.

SOLUTION TO PROBLEM NO. 222 1. Q-Ktb, &c.

Hoth the above problems, as well as those printed last Sunday, were prize winners in the first international tourney promoted by Die Schach

Correct solutions to both these problems received from Frederic J. Halm, Emmissurg, Md.: Dr. W. H. Rider, Danbury, Conn. Charles C. Hutchinson, South Orange, N. J.
Correct solutions received to No. 222 from M. C. Guernsey, Thomaston, Conn.; W. H. G. Warwick, Philadelpiha, Pa.; Miner Trowbridge, Brooklyn,

CORRESPONDENCE. Dr. W. H. Rider, Danbury, Conn.—Your position shall be duly examined.

J. C. New Rochelle, N. Y.—A pawn reaching the eighth square can be transformed into any piece of the same color independent of the fact that the player has that particular piece already on the board. It may thus come to pass that a player succeeding in getting all his pawns to the eighth square may continue the game with nine queens, ten rooks, ten bishops or ten knights. This has been the rule for hundreds of years and was surely the rule in 1880 at Parls.

Robert S. Goerlich, Bethlehem, Pa., wishes to start in the second round of the second correspondence tourney among TRE Sun readers are all the other section winners ready, and if so, please to make a statement to that effect at once.

Are an area of make a statement to a some with william B. Hunt the latter fails to answer his adversary's last move, in which case the game will be awarded to Waldemar.

Beetles That Grow Mushrooms.

From the Chicago Tribune. Scientists have known of mushroom press growing ants for a long time and it was inch. generally believed that the ant was the only insect possess ng sufficient intelligence to make a successful mushroom farmer.

Prof. J. Bouverie, the French entomologist.

The regular staff of firemen and watch-

SPITZBERGEN'S WIRELESS STATION

An Experiment the Norwegians Are Making in the Arctic Region.

LONELY JOB FOR SIX MEN

fastened to anchor pins deep driven into the earth, for the winter winds even in the sheltered cove of Green Harbor are supposed to be terrific. Alongside the tower, and nearly completed, stood the combination office, living and battery

"This building was a marvel of construction, exhibiting walls more than three feet thick, composed in order of timber, tar paper, felt and ashestos. Over the roof and around each of the four corners heavy iron cables were passed and made fast, after which they extended to the ground and were anchored in buried foundations of rock and cement.

secordingly. I therefore expect the champlon to say very little indeed when giving Capablanca his reply."

At the Manhattan Chess Club, where Lasker's refusal to play was much discussed by the members, there is a feeling that the Cuban expert did not use great diplomacy in his reply to the champion. He ought to have laid more stress on the rule that one point should be sufficient.

He ought to have laid more stress on the rule that one point should be sufficient.

He while does not capture the knlght in the centre of the knlght in the centre of the knlght in the centre. Thus every precaution was taken in constructing this desolate habitation to defy the cold and the winds, while in the centre of the hishop at B2 on obstructed diagonals.

(b) The dangerous knight at R3 could have been exchanged with 24 B QS, 28 R R, B RK;

(c) Indifferent too Q Q would have kept the KRP sufficient production was taken in constructing this desolate habitation to defy the cold and the winds, while in the centre of the lambination to defy the cold and the winds, while in the centre of the lambination to defy the cold and the winds, while in the laboration to defy the cold and the winds, while in the lambination to defy the cold and the winds at the centre of the lambination to defy the cold and the winds, while in the lambination to defy the cold and the winds, while in the centre of the lambination to defy the cold and the winds, while in the lambination to defy the cold and the winds at the centre of the lambination to defy the cold and the winds, while in the lambination to defy the cold and the winds at the centre of the lambination to defy the cold and the winds at the centre of the lambination to defy the cold and the winds at the centre of the lambination to defy the cold and the winds at the centre of the lambination to defy the cold and the winds at the centre of the lambination to defy the cold and the winds at the centre of the lambination to defy the cold and the winds at the centre of the lambination to defy the cold a "Thus every precaution was taken in

can a wireless telegraph station but a changed queens with 32. Q. Kis, with better changed queens with 32. Q. Kis, with better prospects of resistance, although white keeps his two bishops and a pawn ahead.

(i) If 30. Ki (B) -R2, then 40. B-R6 and wins.

Government to invest in the project. Indeed at first thought it seems a needless waste of money, and even upon maturer reflection we fail to find any very convincing argument for its establishment and maintenance. The Government's excuse, however, for such an expensive experiment is found in the explanation of the overseer, whom I inter-

viewed. Said he:

"First and most important of all is
the value the station is hoped to prove
in predicting those severe northern storms
that especially in winter sweep unheralded down the Norwegian coast and
work tremendous damage to Norway's
shipping. Our fishing, as you know, is
done mainly in winter, and thousands of
fishing craft frequent the western coast
to follow the one means of support to
vast numbers of our people. If by
means of this Arctic station we can give
due warning of a destructive storm the
Government, if for no other reason, would
be justified in the investment.

be justified in the investment
Then again, the Norwegians have
always been among foremost polar explorers. By means of this wireless station porers. By means of this wireless station polar parties equipped with their own outfit can be traced and watched, and in case of danger can be located and reached. Greater risks can therefore be taken, and greater results be obtained.

"Then, there is the commercial phase of the subject, for as you know coal of a fine quality has been found in Spitzbergen and even now an American Northean N

gen, and even now an American-Nor-wegian company is mining coal here and shipping it to the Continent at a handsome "But for all this there seem some-thing strangely out of joint in this modern invention invading the silent north, though the reasons advanced for its be-ing are unquestionably logical."

FIRE FIGHTING IN JAPAN. Modern Methods Being Introduced in Tokio and Yokohama.

Fires used to be regarded as necessary evils in Japan. Conflagrations which swept through whole quarters. licking up the filmsy houses like waste paper, were mere commonplaces of existence there. But the increased value of modern structures has made it imperative to improve the fire fighting systems.

In Yokohama the apparatus is owned and the firemen are paid by the association of fire insurance companies. In Tokyo it is owned by the city. There are 47 watch towers in Yokohama, each fitted with a gong with which fire alarms are given. At night, says "Consular and Trade Reports," watchwho give the alarm by gongs in case fire is discovered. In Tokyo the tower system is also used for both fire and police alarms. The city is divided into seven districts, each having a central alarm station. About 290 machines reord the alarms upon ticker tape at the different towers and police and fire stations.

The water pressure in the lower portion and in the Japanese quarter of Yokohama is from 30 to 40 pounds per square inch, but in the upper residence section, where there is much valuable property, the pressure is almost n.l. In Tokyo the situation is much more satisfactory. There are nearly 5,000 water plugs in the city and the average pressure is 44 pounds to the square

The coolies who assist in time of fire more letters upon them to distinguish them from those made at Phildelphia, which for many years was the only mint. These letters, which are very small capitals, are found upon the reverse of the coins with the exception of the new design double eagle and the Lincoin head cent, upon which they are on the first two games continued.

The only mints now in operation in this country are those at Philadelphia mint have no mint mark, those struck at all other mints of the United States are discontinued.

The substitute of the coins with the exception of the new design double eagle and the Lincoin head cent, upon which they are on the first two games continued.

The only mints now in operation in this country are those at Philadelphia, mint have no mint mark, those struck at all other mints of the United States are distinguished.

The area successful mushroom farmer. In Yokohama are paid an average of \$7.42 a month. The regular staff of threme and watchmen from that a certain wood boring beetle has found that a certain wood boring beetle have been in Tokyo receive about \$5 \text{cents}\$ and the late Baron Albert to the late Baron Albert

The only mints now in operation in this country are those at Philadelphia. San Francisco and Denver, the others having been discontinued.

Coins struck at the Philadelphia mint have no mint mark, those struck at all other mints of the United States are discontinued by a small letter near the bottom; these letters are: C for Charlotte, N. C., discontinued in 1861; CC for carson Chiv, Nev., discontinued in 1863; D for Dahlonega, Ga., discontinued in 1863; D for Dahlonega, Ga., discontinued in 1863; D for Panlonega, Ga., discontinued in 1864; CC for carson Chess Club drew against J. McAneny and T. Hendrick and Suechting played a match of four games at Hamburz, the latter winding and for Denver, Col., since 1906; O for New Orleans, La., discontinued in 1910, and S for San Francisco.